

**What is claimed is:**

1. A picture phone apparatus comprising:  
an image picking section which picks up a picture data;  
5 a display section;  
a substitution picture storage section which stores a substitution picture data;  
an image processing section which checks whether said picked-up picture data is valid or  
10 invalid, retrieves said substitution picture data from said substitution picture storage section to output as transmission picture data when it is determined that said picked-up picture data is invalid, sets said picked-up picture data as said transmission picture  
15 data when it is determined that said picked-up picture data is valid, and encodes said transmission picture data; and  
a communication processing section which multiplexes said encoded transmission picture data and  
20 transmission audio data into transmission data and transmits said transmission data to a counter station.
2. The picture phone apparatus according to claim 1, wherein said image processing section controls said  
25 display section to display said transmission picture data.

3. The picture phone apparatus according to claim 2, further comprising:

an operation section,

wherein said image processing section encodes  
5 and outputs said transmission picture data to said communication processing section when a picture transmission permission instruction is inputted from said operation section.

10 4. The picture phone apparatus according to claim 1, wherein said image processing section determines whether said picked-up picture data is valid or invalid, based on at least one of brightness data of said picked-up picture data and spatial frequency of  
15 said picked-up picture data.

5. The picture phone apparatus according to claim 1, further comprising:

an audio processing section; and

20 a speaker,

wherein said communication processing section receives reception data, separates said reception data into reception picture data and reception audio data, and outputs said reception picture data to said image  
25 processing section and said reception audio data to said audio processing section,

said audio processing section decodes said

reception audio data to produce an audio signal and drives said speaker based on said audio signal for an audio output, and

5        said image processing section checks whether  
said reception picture data is valid or invalid, sets  
said reception picture data as a reception display  
picture when it is determined that said reception  
picture data is valid, and retrieves said substitution  
picture data to set said substitution picture data as  
10    said reception display picture when it is determined  
that said reception picture data is invalid, and  
outputs said reception display picture to said display  
section.

15    6.        The picture phone apparatus according to claim  
1, wherein said image processing section determines  
whether said reception picture data is valid or  
invalid, based on at least one of brightness data of  
said reception picture data and spatial frequency of  
20    said reception picture data.

7.        The picture phone apparatus according to claim  
1, wherein said substitution picture data is one of a  
still image data and video picture data.

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8.        A picture phone apparatus comprising:  
a display section;

a substitution picture storage section which stores a substitution picture data;

an audio processing section;

an image processing section;

5 a speaker; and

a communication processing section which receives reception data, separates said reception data into reception picture data and reception audio data, and outputs said reception picture data to said image  
10 processing section and said reception audio data to said audio processing section,

wherein said audio processing section decodes said reception audio data to produce an audio signal and drives said speaker based on said audio signal for  
15 an audio output, and

said image processing section checks whether said reception picture data is valid or invalid, sets said reception picture data as a reception display picture when it is determined that said reception  
20 picture data is valid, and retrieves said substitution picture data to set said substitution picture data as said reception display picture when it is determined that said reception picture data is invalid, and outputs said reception display picture to said display  
25 section.

9 The picture phone apparatus according to claim

8, wherein said image processing section determines whether said reception picture data is valid or invalid, based on at least one of brightness data of said reception picture data and spatial frequency of  
5 said reception picture data.

10. The picture phone apparatus according to claim 8, wherein said substitution picture data is one of a still image data and video picture data.

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11. A picture data transmission method in a picture phone apparatus comprising:

picking up a picture data;

checking whether said picked-up picture data is  
15 valid or invalid;

encoding said picked-up picture data as transmission picture data when it is determined that said picked-up picture data is valid, and substitution picture data as said transmission picture data when it  
20 is determined that said picked-up picture data is invalid;

multiplexing said transmission picture data and transmission audio data into transmission data; and transmitting said transmission data to a  
25 counter station.

12. The picture data transmission method according

to claim 11, further comprising:

displaying said transmission picture data.

13. The picture phone apparatus according to claim  
5 12, wherein said encoding is started when a picture  
transmission permission instruction is inputted from a  
user.

14. The picture data transmission method according  
10 to claim 11, wherein said checking is carried out  
based on at least one of brightness data of said  
picked-up picture data and spatial frequency of said  
picked-up picture data.

15 15. The picture data transmission method according  
to claim 11, further comprising:  
receiving reception data;  
separating said reception data into reception  
picture data and reception audio data;  
20 checking whether said reception picture data is  
valid or invalid; and  
displaying said reception picture data when it  
is determined that said reception picture data is  
valid, and said substitution picture data when it is  
25 determined that said reception picture data is  
invalid.

16. The picture data transmission method according to claim 11, wherein said checking is carried out based on at least one of brightness data of said reception picture data and spatial frequency of said reception picture data.

17. The picture data transmission method according to claim 11, wherein said substitution picture data is one of a still image data and video picture data.

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18. A picture data transmission method comprising:  
receiving reception data;

separating said reception data into reception picture data and reception audio data;

15 checking whether said reception picture data is valid or invalid; and

displaying said reception picture data when it is determined that said reception picture data is valid, and said substitution picture data when it is determined that said reception picture data is invalid.

19 The picture data transmission method according to claim 18, wherein said checking is carried out based on at least one of brightness data of said reception picture data and spatial frequency of said reception picture data.

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20. The picture data transmission method according to claim 18, wherein said substitution picture data is one of a still image data and video picture data.